

## **REMARKS**

Claims 1-24 are pending and are rejected. Claims 1, 14, and 23 are amended; the amendments are fully supported in the application as filed and introduce no new matter. Claims 15 and 16 are canceled without prejudice.

Applicant respectfully request consideration of the following arguments, which are believed to put the application in complete condition for allowance.

### **DOUBLE PATENTING**

Claims 14, 22, 23, and 24 are provisionally rejected under U.S.C. §101 over claims 28, 37, 63 and 64 of co-pending Application No. 10/865,893.

Applicant respectfully disagrees and asserts that claims 14, 22, 23, and 24 are patentably distinct over claims 28, 37, 63, and 64 in the 865,893 application for at least the following reasons.

Independent claim 14 of the instant application requires "ascribing a differential signal...being indicative of the final state of the final state of the fluorophore labeled substrate population...and in turn an indicator of enzymatic activity.". This element is lacking in independent claim 28 of the 865,893 application. Claim 22 of the instant application depends from claim 14, thus the same distinctions apply to claim 22.

Claim 23 of the instant application is amended to depend from claim 14, which is distinguished above. Claim 63 of the 865,893 application requires instructions for the method of claim 28 which, as analyzed above, differs from the present method. Claim 24 of the instant application depends from claim 23, thus the same distinctions apply to claim 24.

Claims 15-21 are provisionally rejected on nonstatutory obviousness-type double patenting over claims 29, 32, 34, 35, 37, and 38 of co-pending Application No. 10/865,893. Upon notice of allowable claims, Applicant will file a terminal disclaimer if necessary to overcome the rejection.

### **CLAIM REJECTIONS UNDER 35 U.S.C. §112**

Claims 1-14, 19, and 22-24 are rejected under 35 USC §112 ¶1 as not enabled. The claims are amended to overcome this rejection and Applicant respectfully requests its withdrawal.

Applicant thus believes the rejections under 35 U.S.C. §112 are overcome and respectfully request their withdrawal.

### **CLAIM REJECTIONS UNDER 35 U.S.C. §102**

Claims 1, 2, 4-6, 8, 9, and 11-13 are rejected under 35 USC §102(e) as anticipated by Nikiforov '655 as evidenced by Cox '189.

The Examiner, not persuaded by Applicant's previous argument, states at p. 8 of the December 4, 2006 Office Action:

[T]he spatial arrangement of the composition of Nikiforov ('655); a substrate containing a fluorescent label (fluorophore) and a phosphoryl group (target group), a binding component comprising multivalent metal ions which binds to the target group so as to cause a shift in the amount of polarized fluorescence emitted from the phosphorylated product when combined with the teachings of Cox et al. that multivalent (paramagnetic) metal ions possess quenching properties over fluorophores, is sufficient to infer that while quenching of fluorescence was not measured or even intended by the

assay of Nikiforov ('655), that there is every reasonable expectation that quenching does occur. The argument that the conditions of the Nikiforov ('655) assay vs. the Applicant's assay are different because one measures a change in fluorescent polarization and the other and [sic] change in fluorescence emission is not persuasive because the means of measurement does not change the fact that the composition is the composition regardless of how the shift in fluorescence is finally measured.

...

[T]he composition of Nikiforov ('141) clearly interact (bind) in a specific manner (Column 14, Lines 40-54 and Figs. 3 and 4).

Applicant respectfully disagrees, at least because these statements indicate that the Examiner considers a composition formed in a fluorescence quench-based assay, as claims 1, 2, 4-6, 8, 9, 11-13 require, to be interchangeable with a composition formed in a fluorescence polarization assay.

Claims 1, 2, 4-6, 8, 9, 11-13 specifically recite that the complex and the fluorophore in the composition must be positioned so that specific quenching will always result whenever the complex forms. ("...said complex being in proximity to the fluorophore to cause the specific quenching of the fluorescence of the label when the complex forms").

In contrast, each of Nikiforov's "655 and '141 compositions does not and cannot always result in specific quenching any time its complex forms. In Nikiforov's '655 and '141 composition, fluorescence quenching would not always results, because it would require that a "large polymeric binding component containing the metal ion" happened to bind at a site within the limited range of the fluorophore. Further, even if such a composition was formed, it would not be a composition formed "...in a fluorescence quench-based homogeneous assay" as Applicant requires, because Nikiforov '655 and '141 disclose only fluorescent polarization assays.

A proper anticipation reference must teach each and every element as set for in the claim, either expressly or inherently. M.P.E.P. §2131. Neither Nikiforov '655 nor '141 does this. Specifically, neither reference teaches Applicant's complex that is in proximity to the fluorophore "to cause the specific quenching of the fluorescence of the label when the complex forms" in a fluorescence (claim 1, emphasis added).

For at least these reasons, Applicant asserts that the rejections under 35 §102 are overcome and respectfully requests their withdrawal.

### **CLAIM REJECTIONS UNDER 35 U.S.C. §103**

Claims 23-24 are rejected under 35 USC §103(a) as obvious over Nikiforov '141 as evidenced by Cox '189.

Applicant has amended claims 23-24 to depend from claim 14; the Examiner states "claims 14-22 appear to be free of the art" (p. 9 December 4, 2006 Office Action). Because claim 14 is free of the art, claims 23-24 are similarly free of the art.

Applicant believes this rejection is completely overcome and respectfully requests its withdrawal.

### **CONCLUSION**

Applicant believes the application is in condition for allowance and that no fee is due. If any fees are necessary, the Examiner is authorized to charge them to Deposit Account No. 23-3000.

The Examiner is invited to contact Applicant's undersigned representative with questions.

Respectfully submitted,

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